

IN THE CLAIMS

Please amend the following claims. A marked-up version, indicating the changes that have been made, is attached at Appendix B. Please add the following new claims 56-73.

B2  
37. (Amended) Apparatus as defined in claim 36 wherein said deflectable mounting structures support said frame on a track structure which guides movement of said frame.

38. (Amended) Apparatus as defined in claim 37 further comprising a deflectable seat cushion on said frame.

B3  
40. (Amended) Apparatus as defined in claim 39 further comprising a deflectable seat cushion covering said bottom portion of said frame.

B4  
44. (Amended) An apparatus as in claim 42 wherein said seat structure is a seat pan.

B5  
56. (New) An apparatus as in claim 45 wherein said at least one strain gage comprises a first pair of strain gages diametrically opposite from each other and mounted directly to said deflectable portion at a first position and a second pair of strain gages diametrically opposite from each other and mounted directly to said deflectable portion at a second position spaced apart from said first position.

57. (New) An apparatus as in claim 56 wherein both of said first pair of strain gages are positioned between said second pair of strain gages on a common surface of said deflectable portion.

58. (New) An apparatus as in claim 42 wherein each of said sensors includes a sensor interface circuit mounted to said deflectable portion that develops a pulse width modulation signal indicative of the weight applied to said corresponding sensor.

59. (New) An apparatus as in claim 58 wherein said sensor interface circuit includes a pulse width modulation circuit and a two-stage signal amplifier for amplifying said pulse width modulation signal to a readable level.

60. (New) An apparatus as in claim 59 including a temperature control circuit for compensating for varying temperatures within the sensor interface circuit.

61. (New) An apparatus as in claim 42 wherein said controller calculates weight of an occupant by sampling the response of each of said sensors to a weight applied to said vehicle seat structure.

62. (New) An apparatus as in claim 61 wherein said controller samples said sensors approximately every thirty milliseconds.

63. (New) An apparatus as in claim 61 wherein said controller determines the weight by computing a biased average of each of said sensors over time and summing all of said biased averages together to obtain a total weight.

64. (New) An apparatus as in claim 62 wherein said controller determines occupant center of gravity based on measurements taken by said sensors and determines occupant position based on total weight and center of gravity.

65. (New) An apparatus as in claim 64 wherein said controller generates a correction factor based on said center of gravity and determines a corrected occupant weight by modifying said total weight by said correction factor.

66. (New) A method as in claim 54 including the steps of associating a sensor interface circuit with each sensor mounted to the deflectable portion and developing a pulse width modulation signal indicative of the weight applied to the corresponding sensor.

67. (New) A method as in claim 66 including the steps of providing the sensor interface circuit with a two-stage signal amplifier and amplifying the pulse width modulation signals for each sensor to a readable level.

68. (New) A method as in claim 67 including the step of providing the sensor interface circuit with a temperature control circuit for compensating for varying temperatures within the sensor interface circuit.

69. (New) A method as in claim 54 including the step of calculating weight of an occupant by sampling the response of each of the sensors to a weight applied to the vehicle seat structure.

70. (New) A method as in claim 69 including the step of sampling the sensors approximately every thirty milliseconds.

71. (New) A method as in claim 69 including the steps of determining the weight by computing a biased average of each of the sensors over time and summing all of the biased averages together to obtain a total weight.

72. (New) A method as in claim 71 including the steps of determining occupant center of gravity based on measurements taken by the sensors and determining occupant position based on total weight and center of gravity.

73. (New) A method as in claim 72 including the steps of generating a correction factor based on the center of gravity and determining a corrected occupant weight by modifying the total weight by the correction factor.

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